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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,626	07/21/2003	Shuji Yamakawa	5258-000017	5176
27572	7590	07/12/2004	EXAMINER	
HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 828 BLOOMFIELD HILLS, MI 48303			FIGUEROA, FELIX O	
			ART UNIT	PAPER NUMBER
			2833	

DATE MAILED: 07/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/623,626

Applicant(s)

YAMAKAWA ET AL.

Examiner

Felix O. Figueroa

Art Unit

2833

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 May 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 remains rejected under 35 U.S.C. 103(a) as being unpatentable over Saito et al. (US 6,402,530) in view of Hatagishi et al. (US 5,954,533).

Saito discloses a connection structure between bus bars (16) and relay terminals (30a) in an electrical connection box (10) to be mounted on an automobile, the connection structure comprising: each bus bar formed into a desired circuit configuration; an end (16d) of each of the bus bar being bent so that each end is connected to a respective one of the relay terminals; each bus bar being welded to each respective relay terminal. However, Saito does not disclose any specific material for the bus bars. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use an aluminum-based metal as the preferred material for the bus bars, in order to provide a lightweight bus bar, and since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design preference. *In re Leshin*, 125 USPQ 416.

Saito discloses substantially the claimed invention except for the insulation resin around the connection parts. Hatagishi teaches the use of an insulating resin (30)

surrounding joint connection parts (at 22) to strengthen and protect the connection.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to form the welded connection parts of Saito embedded in a molded resin insulation, as taught by Hatagishi, to strengthen and protect the connection.

Claim 2 remains rejected under 35 U.S.C. 103(a) as being unpatentable over Saito et al. (US 6,402,530) in view of LaCroix (US 6,261,117).

Saito discloses a connection structure between bus bars (16) and relay terminals (30a) in an electrical connection box (10) to be mounted on an automobile, the connection structure comprising: each bus bars formed into a desired circuit configuration; an end (16d) of each of the bus bar being bent so that each end is connected to a respective one of the relay terminals; each bus bar being welded to each respective relay terminal. However, Saito does not disclose any specific material for the bus bars. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use an aluminum-based metal as the preferred material for the bus bars, in order to provide a lightweight bus bar, and since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design preference. *In re Leshin*, 125 USPQ 416.

Saito discloses substantially the claimed invention except for the grease around the connection parts. LaCroix teaches the use of grease surrounding joint connection parts to protect the connection against dust and moisture. Therefore, it would have

been obvious to a person of ordinary skill in the art at the time the invention was made to form the welded connection parts of Saito surrounded by grease, as taught by LaCroix, to protect the connection against dust and moisture.

Response to Arguments

Applicant's arguments filed May 13, 2004 have been fully considered but they are not persuasive.

In response to Applicant's arguments that Saito does not disclose or suggest "the utilization of an aluminum based metal plate", it is noted that the rejection does not state that Saito discloses that feature but rather that it would have been obvious to use an aluminum-based metal in order to provide a lightweight bus bar.

In response to applicant's argument that in Hatagishi "the resin material is prevented from flowing towards the electrical contact portion 21 of the crimping terminal", it is noted that, as shown in Fig.5b, the electrical contact portion 22 is embedded in the resin material. Thus, teaching the use of resin material around connection parts.

In response to Applicant's arguments that LaCroix does not disclose "that the grease surrounds the connection as claimed by Applicants", please note that the claim only requires that "grease is applied to and fills in exteriors and clearances of welded connection parts between each said bus bars and said relay terminals". In LaCroix, the hollow introduction shaft is "exteriors and clearances" of the connection parts.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Felix O. Figueroa whose telephone number is (571) 272-2003. The examiner can normally be reached on Mon.-Fri., 10:00am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A. Bradley can be reached on (571) 272-2800 Ext. 33. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ffr




P. AUSTIN BRADLEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800